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# CHRYSOLINA OF THE WORLD – 2022 (COLEOPTERA: CHRYSOMELIDAE).

# TAXONOMIC REVIEW

by Andrzej O. Bieńkowski

То, что хотел бы я высказать, высказыванию не подлежит,
ибо вот то, что я высказать хотел бы, оно таково,
что, когда его все же высказать пытаешься, оно бежит,
а когда не пытаешься, ввек не избавишься от него.
Кое-кому в этом видятся контуры некоего совершенства.

Мне же мерещится нечто нелепое: новый наряд короля;
к чучелу чудища не подошедшие зубы, хребет, плавник;
темный аккорд вне тональности, вязкое "до-фа диез-ля";
в муках разбитую мастером вазу склеивающий ученик...
Кое-кто без особых причин именует это соблазном.

Бью себя по рукам, твержу: оставь, не сходи, брат, с ума;
ты, даже в родном диалекте не ориентируясь наверняка,
будучи лишь приложением к вывеске "Генрих" или там "Франсуа",
ловишь на слове то, для чего не выдумано языка...
Кое-кто, неизвестно зачем, прибегает с этим к латыни.

Nomen? Sermo? Aestus? Aevum? Aurum? Oriens? Malum? Scelus? Luctum? Luctus? Maeror? Odium?..

Видимо, я не прав, говоря, что погоды стоят еще те.
Видимо, они уже эти, двадцатого раза по сто нашей, не чьей-нибудь эры, в не чьей-нибудь нищете...
Стоп! Это все уже было, было... значит, не то, не то...
Кое-кому это кажется чем-то не совместимым с карьерой.

Мне же - вот только что - чудилось: вижу, нашел, сошлось!
Явственно обнаружились какие-то маяки, резеда, мистраль...
Правда, через секунду это покрылось коростой и взорвалось,
в воздухе вычертив снежную сверхскоростную горизонталь...
Кое-кто почитает за благо не трогать этого вовсе.

Carmen. Meturs. Merum. Mustum. Reditus. Requies.
Lumen. Flamen. Caelum. Deus. Venia. Otiu...

Сбросить оцепенение, буквы пересчитать, повторить "не то",
встать, потоптаться несколько - и снова назад, в дурман...
Есть, наконец, эксперты авторитетнее, нежели кое-кто...
Шар замедляет движение... Прах осыпается со стремян...
Кое-кто ничего вообще под этим не разумеет.

/М. Щербаков/

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**Subgenus *Allochrysolina***
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**Subgenus *Anopachys***
**Subgenus *Apterosoma***
**Subgenus *Arctolina***
**Subgenus *Atechna***
**Subgenus *Atlasiana***
**Subgenus *Bechynia***
**Subgenus *Bittotaenia***
**Subgenus *Cecchiniola***
**Subgenus *Centoptera***
**Subgenus *Chalcoidea***
**Subgenus *Chersomela***
**Subgenus *Chrysocrosita***
**Subgenus *Chrysolina* s.str.**
**Subgenus *Chrysolinopsis***
**Subgenus *Chrysomorpha***
**Subgenus *Colaphodes***
**Subgenus *Colaphoptera***
**Subgenus *Colaphosoma***
**Subgenus *Crositops***
**Subgenus *Cyrtochrysolina***
**Subgenus *Diachalcoidea***
**Subgenus *Erythrochrysa***
**Subgenus *Euchrysolina***
**Subgenus *Fastuolina***
**Subgenus *Ghesquiereita***
**Subgenus *Gnathomela***
**Subgenus *Heliostola***
**Subgenus *Hypericia***
**Subgenus *Hypochalcoidea***
**Subgenus *Jeanclaudia***
**Subgenus *Liomela***
**Subgenus *Lithopteroides***
**Subgenus *Lopatinica***
**Subgenus *Maenadochrysa***
**Subgenus *Medvedevlevna***
**Subgenus *Melasomoptera***
**Subgenus *Naluhia***
**Subgenus *Omolina***
**Subgenus *Ovosoma***
**Subgenus *Ovostoma***
**Subgenus *Palaeosticta***
**Subgenus *Paracrosita***
**Subgenus *Paramenthastriella***
**Subgenus *Pezocrosita***
**Subgenus *Pierryvettia***
**Subgenus *Pleurosticha***
**Subgenus *Polystictella***
**Subgenus *Pseudocrosita***
**Subgenus *Pseudolithoptera***
**Subgenus *Pseudotimarchomima***
**Subgenus *Rhyssoloma***
**Subgenus *Semenowia***
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**Subgenus *Sphaerochrysolina***
**Subgenus *Sphaeromela***
**Subgenus *Stichoptera***
**Subgenus *Sulcicollis***
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**Subgenus *Threnosoma***
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**Subgenus *Vittatochrysa***
**Subgenus *Volosatik***
**Subgenus *Zeugotaenia***
**Unnamed species groups of subgeneric rank**
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***Ch.* (*dhaulagirica*) species group**
***Ch.* (*dohertyi*) species group**
***Ch.* (*fortunata*) species group**
***Ch.* (*kinabaluensis*) species group**
***Ch.* (*nagaja*) species group**
***Ch.* (*pieli*) species group**
***Ch.* (*seriepunctata*) species group**
***Ch.* (*tani*) species group**
***Ch.* (*zhongdiana*) species group**
**Species *incertae sedis***
**Supplement**
**Genus *Camerounia***
**Genus *Timarchomima***
6. Comments on taxonomy, nomenclature, and distribution
7. Index of nominal taxa included in the Checklist
8. References

**Abstract**

Key to genera of the subtribe Chrysolinina is presented, and systematic position of certain genera within this subtribe is discussed. Key to subgenera of the genus *Chrysolina* is compiled. ... species of all ... subgenera of the genus *Chrysolina*, as well as ... species of unnamed groups of the subgeneral rank are reviewed, keyed, and illustrated. Ten species *incertae sedis* are added.

## Foreword

*Chrysolina* is a very diverse genus of leaf-beetles. ... valid species and ... *incertae sedis* ones are recorded presently. Most species are distributed in Palaearctic. They are fewer in Ethiopian and Oriental regions, and, especially, in Nearctic region. Some species were introduced in Australia, N and S America. Native *Chrysolina* species absent in Neotropical region, however, numerous members of closely related subtribe Doryphorina inhabit that area.

Suffrian (1851) was the first who suggested a system of *Chrysolina* (called *Chrysomela* at that time), based mostly on European species. Motschulsky (1860a) divided *Chrysomela* in a number of new genera. Many of them are presently considered as valid for subgenera of *Chrysolina*. Weise (1882, 1884a) revised Suffrian's classification, based on the European species. Marseul (1886, 1887) published keys and descriptions of Palaearctic *Chrysolina* on the base of the Suffrian's system. Bechyné (1950a, 1952a) laid the foundation for the modern subgeneric system of this genus, studied most of the taxa known at that time, published key to subgenera, subgeneric diagnosae and a number of subgeneric reviews.

The present work is generally based on my checklist (Bieńkowski, 2001) and first volume of worldwide monograph (Bieńkowski, 2007a). The latter includes review of *Chrysolina* subgenera from *Allochrysolina* to *Chrysocrosita* alphabetically ordered.

My new work is an overview of the current state of our knowledge but not a complete revision, since I have not examined types of many nominal taxa. Besides that, I have not seen any specimens of the following valid species: *Chrysolina ivanovi* Mikhailov, 2022, *Ch. kabalaki* Şen, 2015, *Ch. lomakini* Mikhailov, 2002, *Ch. luobinwangi* Ge, Daccordi, 2011, *Ch. orochi* Takemoto, 2022, *Ch. pubitarsis* Bechyné, 1950a, *Ch. romandudkoi* Mikhailov, 2019; as well as species *incertae sedis*: *Ch. corrugata* Péringuey, 1892, *Ch. cuiae* Ge, Daccordi, 2011, *Ch. gyacaensis* Daccordi, Yang, 2011, *Ch. kamali* Abdullah et Qureshi, 1969, *Ch. postviolacea* Marseul, 1887, *Ch. taibaica* Chen, 1961, *Ch. tangalaensis* Kimoto, 2001.

I will be grateful for any comments on the book and will try to take them into account in the new edition of this work. I will investigate new materials with interest.

**Acknowledgements**

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I am grateful all colleagues for allowing to study the specimens (and photos of the specimens) from their collections; to the curators of the institutional and museum collections for the generously allowing me to borrow material from the respective collections (curators and private collection owners are mentioned in the beginning of the section "Checklist... ").

I am grateful to my eldest son Andrey, who created the software with which I compiled and edited such large keys as "Key to the subgenera... " and key of the *Ch.* (*zhongdiana*) species group, and to my youngest son Stanislaw for computer processing of photos.

I have been writing this book for more than 25 years, and in this matter I have always been supported by my wife, Marina, to whom I am very grateful for that.

## How does this book work?

1. **Morphology and Taxonomy.** This section includes explanation of some special features used in the keys and diagnoses, as well as clarifying some general taxonomical questions.

2. **Subtribe Chrysolinina Chen, 1936a.** Diagnosis of subtribe and key to genera.

3. **Key to the subgenera and unnamed groups of subgeneric level of the genus *Chrysolina*.**

4. **Checklist of all the described available names of subgeneric, specific, and intraspecific rank.** Subgenera and species within each subgenus are ordered alphabetically; subspecies within the species are ordered as follows: first comes a nominotypical subspecies, followed by the others alphabetically ordered. All synonyms, belonging to the same taxon, follow in chronological order. Checklist is organized by the following scheme:

Valid name of subgenus Author, year

*Original spelling of the subgeneral name* Author, year: page (type species in its original spelling,corrected if it is necesary [senior synonym of the type species with author, year, if presents] method of the type designation)

*valid name of species* (*subspecies*) Author, year ♂♀* (* **–** the gender of the specimens studied by me) Distribution

*Original spelling of the name in the combination with generic* (*subgeneric*) *name* Author, year: page (type locality – enclosed in quotes if cited from the original description directly, or without quotes when taken from original publication, other publications, type labels, etc.; categories of type specimen(s); deposition of the type specimens in Museum(s) or private collection(s); have the type(s) been studied / designated by me or anyone?) **[com. №...] –** link to the section "6. Comments on taxonomy, nomenclature, and distribution".

5. **Review of the subgenera, alphabetically ordered, unnamed groups of subgeneric level, and supplement.** This chapter is the result of my research on nomenclature and systematics, the content of which is given in the chapter 6 "Comments...". But the present chapter has no direct links to the relevant sections of the chapter 6. To refer to them, one should find the taxa under consideration in the chapter 4 "Checklist... " and go from there by the links to the necessary sections of the chapter 6.

Each review includes: diagnosis of the subgenus, differential diagnosis, key to species (in some cases, to subspecies) if necessary, figures numbered within each subgenus. *Undescribed species* (*subspecies*) are included in this section as follows: "*Ch.* sp. №". These new taxa are included in the present work, but not described here based on the following considerations: 1) the best way to publish new taxa is well-known scientific journals ("Zootaxa", etc.), 2) professor Petr Vladimirovich Matekin taught us that a new taxon should be presented to the scientific community before it is formally described so that colleagues can express their opinion, 3) the present work does not contain complete morphological descriptions of species, the preparation of such descriptions would take a long time and delay the release of the book as a whole, 4) inclusion in the consideration the undescribed species allows to evaluate the diversity of forms within the genus and subgenera. These new taxa will be described by me in near future in the scientific journals. This section ends with "Species *incertae sedis*". Supplement includes reviews of the genera *Camerounia* and *Timarchomima* taxonomically close to *Chrysolina*.

6. **Comments on taxonomy, nomenclature, and distribution.** The number of each comment corresponds to the number in the section 4 "Checklist... "

7. **Index of nominal taxa included in the Checklist.** This section allows you to find any name in the Checklist. Then, you can determine which subgenus this taxon belongs to, and finally refer to the section "Review of the subgenera..." to identify the species or subspecies.

8. **References** includes, among other citations, the works containing original descriptions of all nominal taxa, belonging to *Chrysolina*.

**Figures** are numbered by chapters. Figure captions and references in the chapter 5 "Review of the subgenera..." begin with the title of the corresponding chapter and look like "*Chrysolina* s.str. figures 1–11"; those in the chapter 6 "Comments..." look like "Fig. 1".

**Material examined** as an additional supporting information will be available on the following sites:
https://www.zin.ru/Animalia/Coleoptera/rus/bienkows.htm
https://www.researchgate.net/profile/A_Bienkowski
In addition, it can be obtained from me (bienkowski@yandex.ru) upon request.